

R0015007 Bench Assemble Roller Tables Machining Outfeed

Instructions to bench assemble roller beds

 Difficulty **Medium**

 Duration **6 hour(s)**

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Comments

Introduction

Tools Required

Standard Hex key set

Standard spanner set

Tape measure/Rule

8.2mm HSS drill

Drill

Parts Required

B0001092 Plastic Roller Blue Ø30 x 194 Long. Spring Loaded Shafts x 45

B0001103 bush flange x 26

B0001220 spacer x 26

D0015001 Roller Bed Cylinder Arm x 13

D0015002 Shaft 10mm: 58mm Rod End x 13

D0015003 Roller Bed Rail 375mm x 4

D0015004 Roller Bed Rail 550mm x 2

D0015005 Roller Bed Rail 1000mm x 10

D0015006B Roller Bed Arm Bracket x 13

D0015010 Rod End Spacer x 26

D0015481 Shaft 8mm: 50mm Cylinder Pivot x 13

D0015547 Sensor Blower Plate x 2

D0015603 Roller Bed Pivot Shaft (silver steel) x 13

E0001120 Sensor: Ultrasonic M8 20-150mm x 2
P0000046 Fitting: 'Y' Adaptor 6mm x 1
P0000049 Cylinder Spherical Bearing M10 x 1.25 x 13
P0000200 Elbow Adaptor 6mm - M5 x 2
P0001030 Fitting: SMC 6mm Equal Tee x 10
P0001110 cylinder 25 x 10 x 13
P0001198 Fitting flow reg x 26

Step 1 - Unless otherwise stated

Use loctite 243 on all fasteners
Use loctite 572 on all threaded pneumatic connection
Pen mark all fasteners to show finalised



Step 2 - Assemble Cylinder assembly

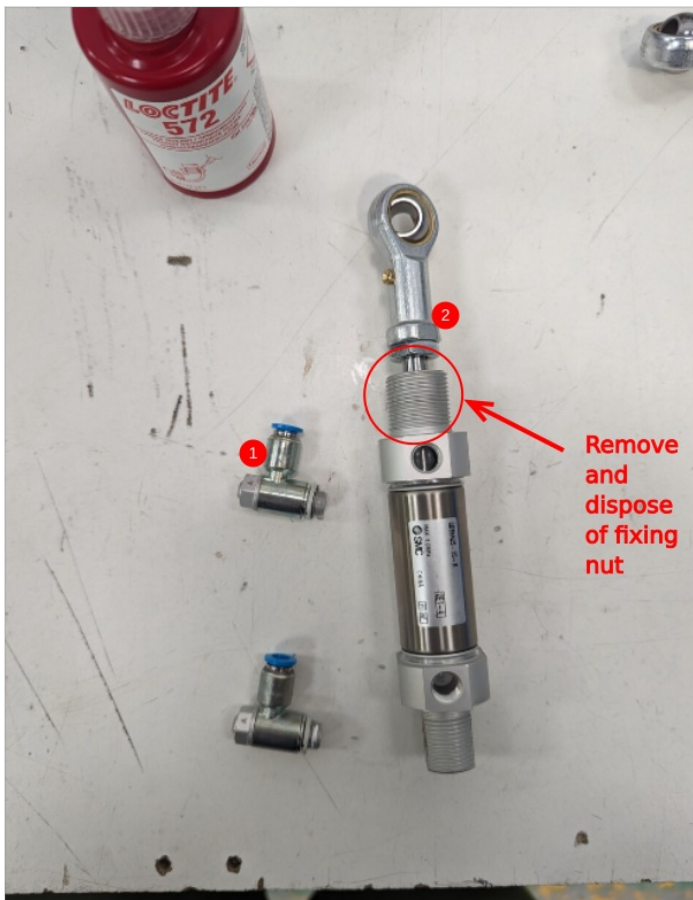
⚠Ensure Fixing nut from indicated point is removed from each cylinder and disregarded

13 off

i ...All Flow regulator fittings P0001198 should be set at this point to the correct flow rate. To do this follow these steps
1 Wind regulation screw clockwise until fully in. Do not overtighten, stop when light resistance is felt.
2 Turn regulation screw exactly 2.5 turns anticlockwise to set flow rate

1 Fit 2 off P0001198 fittings to cylinder P0001110

2 Fit spherical bearing P0000049 to cylinder end , Do not add final tension to the nut



Step 3 - Check for rework

13 off

Check part D00150001 has been supplied to new specification

Check indicated hole, should measure 8.2mm. If not open up with hand drill

Drawing change requested 06/06/23 to amend from 8mm to 8.2mm



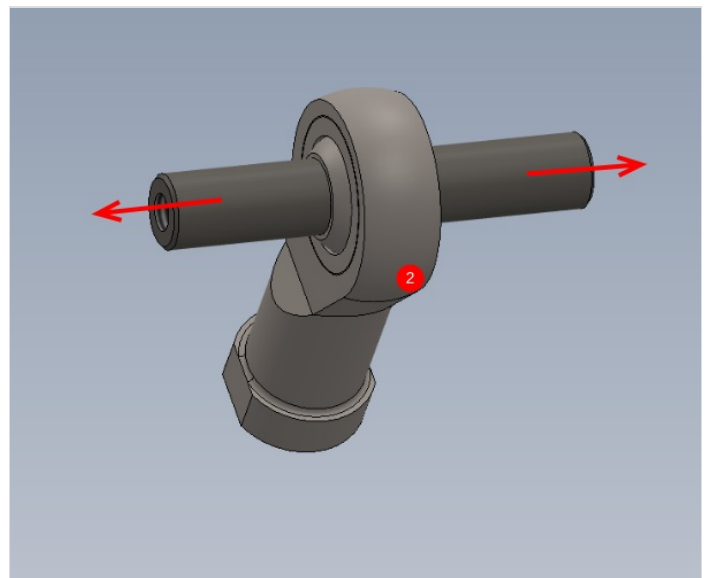
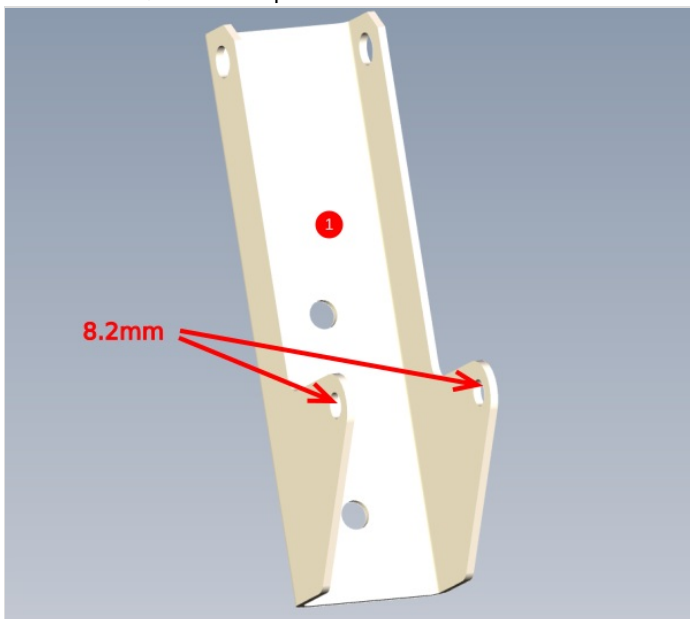
Step 4 - Check for rework of following parts

1 D0015006B indicated holes should measure as shown. Rework by hand if issued old spec

ECR raised 06/06/23

2 D0015002 rod end shaft . Check fit in P0000049 spherical bearing . Polish down diameter to allow shaft to pass through.

ECR raised 06/06.23 to improve tolerance of shaft to allow better fitment

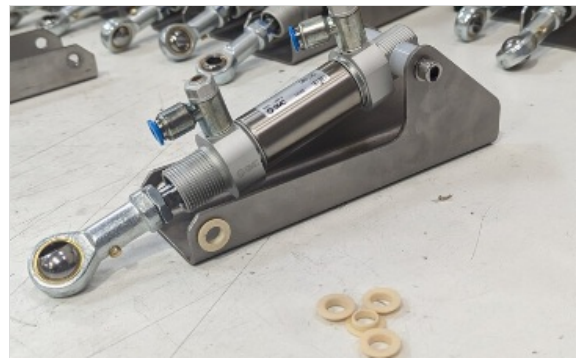
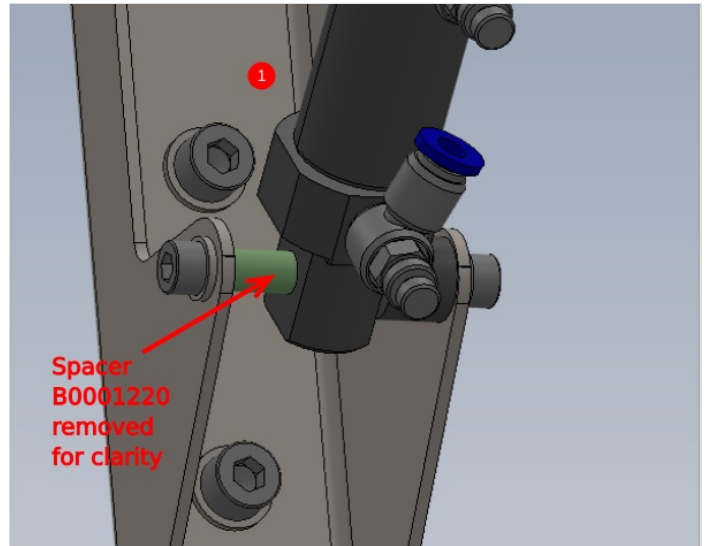
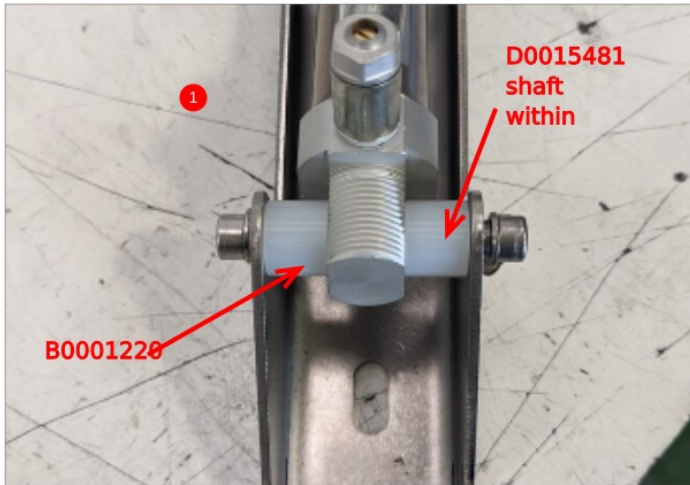


Step 5 - Fit bushes and mount cylinder

13 off

1 Combine D0015481 shaft and B0001220 spacer as shown to mount cylinder to bracket. Use 26 off M6 x 12 socket caps and A form washers to fasten

2 Fit 2 off B0001103 bushes to D0015006B

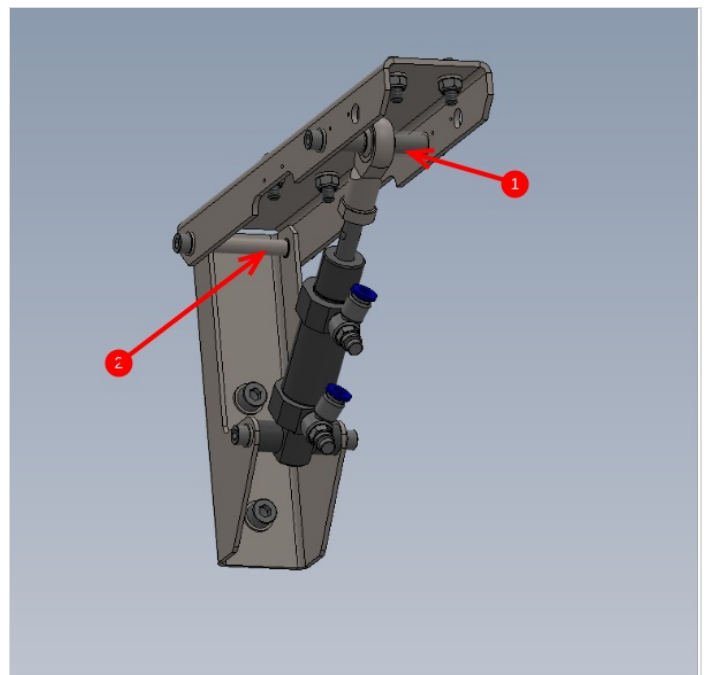


Step 6 - Combine support arm and roller bracket

13 off

1 Fit 2 off D0015010 spacers, 1 off d0015002 shaft through spherical bearing and fix with 2 off m6 X 12 socket caps and A form washers

2 Fit 1 off D0015603 pivot shaft with 2 off M6 x 12 socket caps and A Form washers

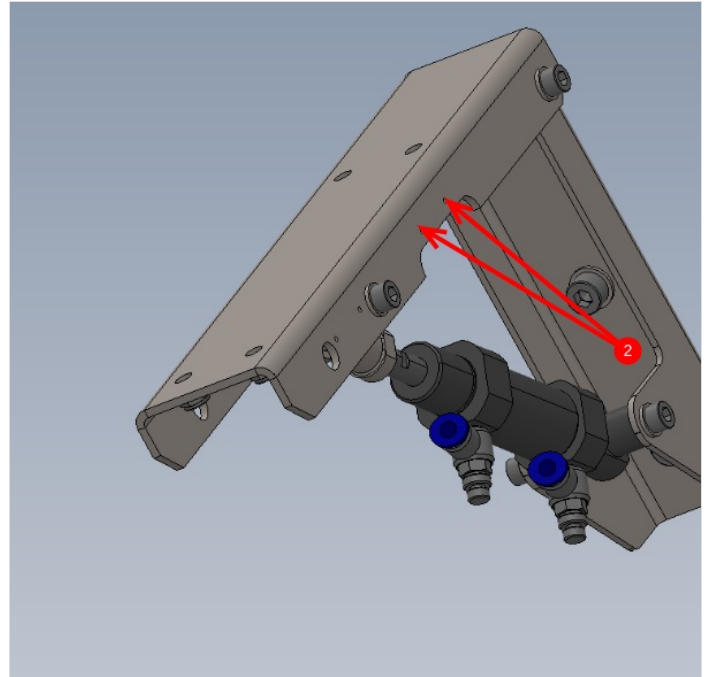
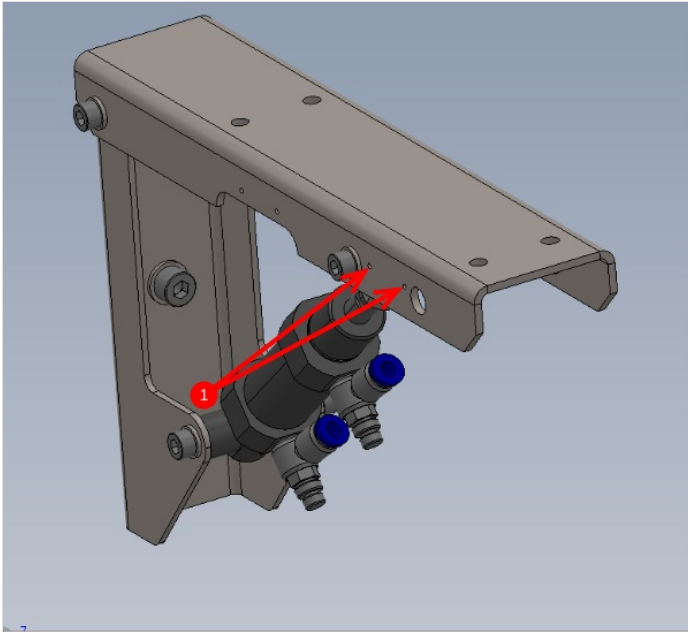


Step 7 - Prepare M3 holes

1 off only and mark for later Reference

1 Tap 2 off indicated holes M3

2 Tap 2 off indicated holes M3



Step 8 - Assemble Large roller Table

5 off to be assembled

1 Mount 2 off D0015005 to prebuild cylinder assemblies as shown

Use M6 x 20 button socket head , A form washer and M6 nyloc nuts to fix.

Do not use washer under head of button head screw, only use washers on nut side

2 Adjust the 2 off D0015005

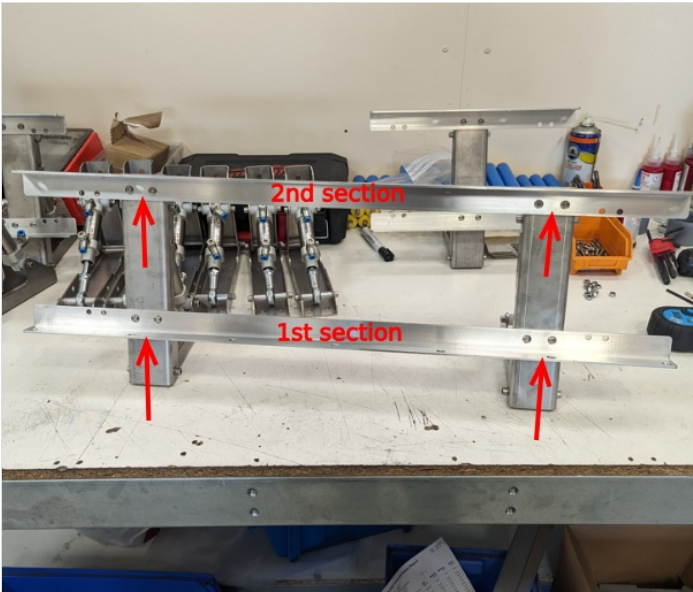
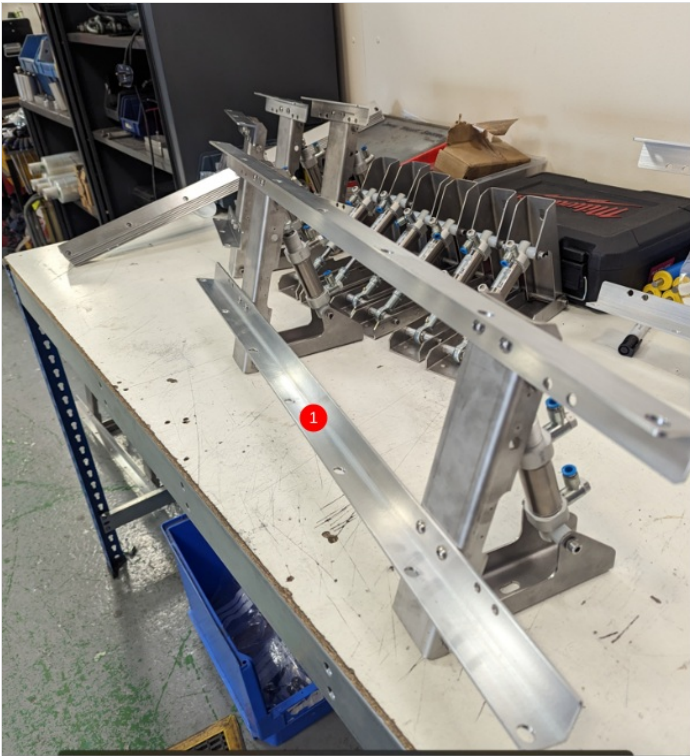
1st section pushed against edge of clearance hole in direction shown

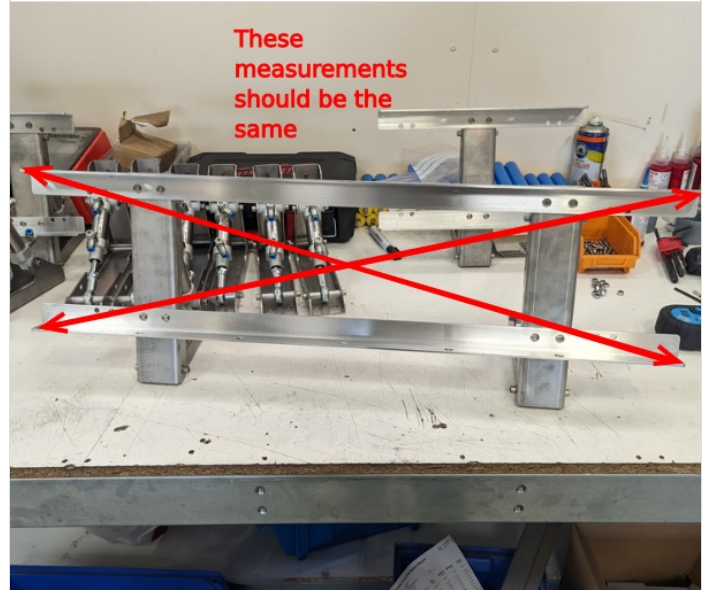
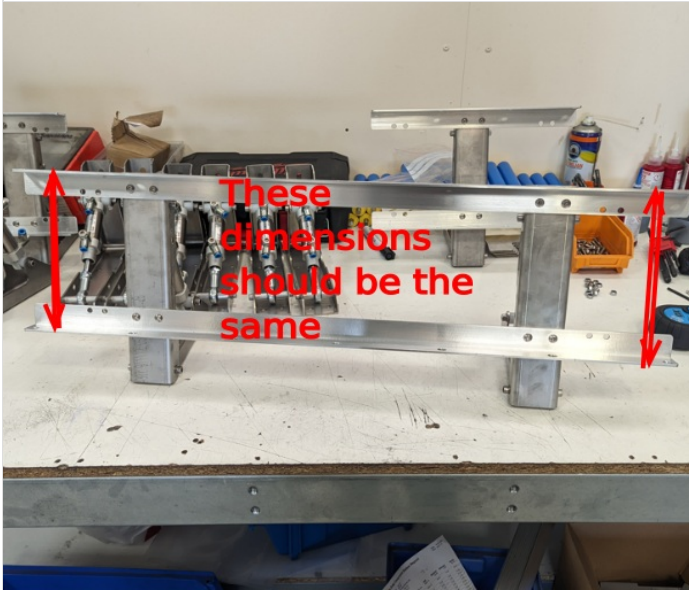
2nd section pushed in same direction

3rd Check parallel and adjust to correct

4th check squareness by taking corner measurements and adjusting if required

Once all above is achieved, finalise fasteners





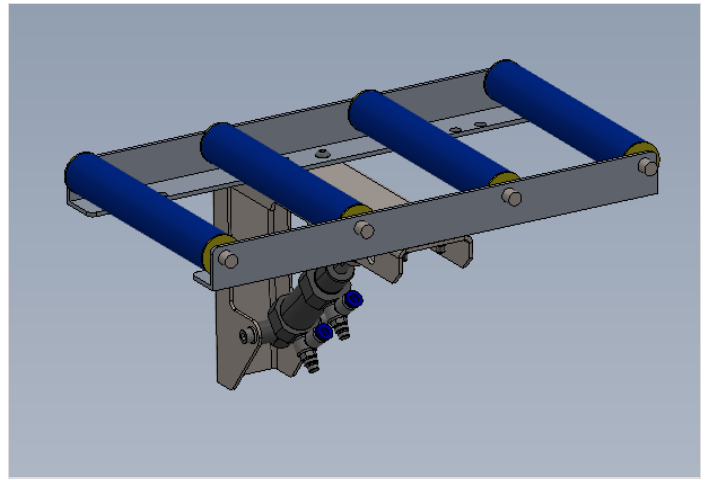
Step 9 - Fit rollers

Fit 7 off B0001092 roller to each assembly



Step 10 - Assemble medium roller table

Using same checks and setting as above assemble roller table with 4 rollers as shown

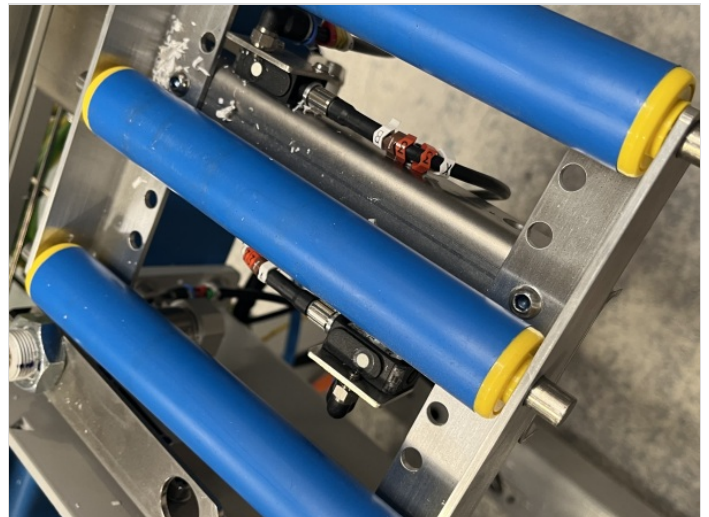
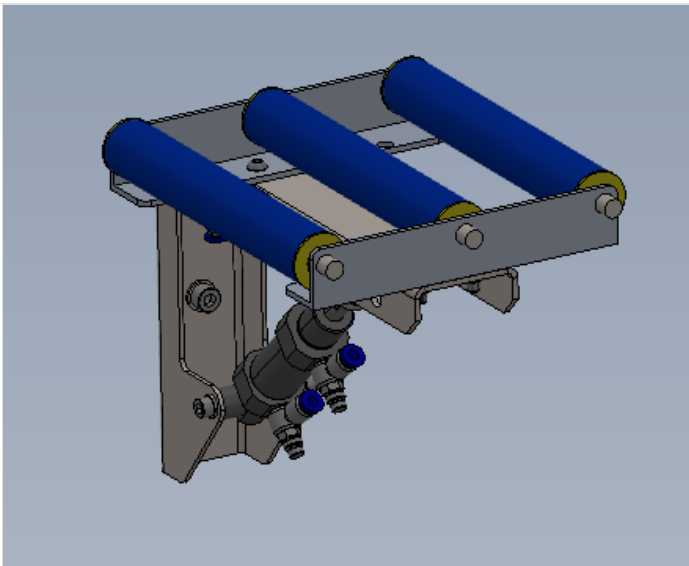


Step 11 - Assemble small roller table

2 off

Using same checks and setting as above assemble 2 off roller tables with 3 rollers as shown,

Use the pre built cylinder bracket with m3 tapped holes for 1 off, and add 2 off Sensor E001120 ,2 off Blower P0000200 and 2 off bracket D0015547 as shown . Connect P0000160 flow reg with a small section of 6mm black air pipe to each P0000200 elbow. Label as 2449







Step 12 - Pneumatic pre assembly

5 off

7 Roller bed assemblies with two cylinders require pneumatic pipe installation.

Use identification numbers as follows

1241 Home position

1249 Active position (down)

